

**STATEMENT OF  
BENJAMIN GRUMBLES  
ACTING ASSISTANT ADMINISTRATOR FOR WATER  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
BEFORE THE  
GOVERNMENT REFORM COMMITTEE  
UNITED STATES HOUSE OF REPRESENTATIVES  
May 21, 2004**

Good morning, Mr. Chairman and Members of the Committee. I am Benjamin Grumbles, Acting Assistant Administrator for Water at the United States Environmental Protection Agency (EPA). I welcome this opportunity to return to the Committee to further discuss the issue of lead in drinking water and update the Committee on actions that EPA has been taking at the national level to address the matter. Regional Administrator Welsh will update you on activities underway to address the specific situation related to elevated lead levels in the District of Columbia's (D.C.'s) drinking water.

**Lead as a Public Health Concern**

As I noted at the March 5 hearing, EPA places a high priority on reducing exposure to lead. This contaminant has been found to have serious health effects, particularly for children. Health effects may include delays in normal physical and mental development in infants and young children; slight deficits in the attention span hearing, and learning abilities of children; and, high blood pressure in some adults (which may lead to kidney disease and increased chance of stroke). But pregnant women and children are our primary concern. The Centers for Disease Control and Prevention (CDC) has identified a blood lead level of 10 micrograms per deciliter as the level of concern for lead in children.

Approximately 2% of children between the ages of 1 to 5 were estimated to have blood levels that exceeded the level of concern for the period 1999-2000, a significant decrease from the 88% estimated to exceed that level for the period between 1976 to 1980.

[Surveillance for Elevated Blood Lead Levels Among Children – United States, 1997–2001. Centers for Disease Control and Prevention. Surveillance Summaries, September 12, 2003. MMWR 2003:52 (No. SS-10)].

The most common source of lead exposure for children today is lead in paint in older housing and the contaminated dust and soil it generates. [see Risk Analysis to Support Standards for Lead in Paint, Dust and Soil (EPA 747-R-97-006, June 1998] This is primarily from housing built in the 1950s and homes with pre-1978 paint. Several Federal programs and surveillance and prevention programs at the State and local level continue to work towards reducing exposure to lead. In addition, EPA works with Federal agencies through the President's Task Force on Environmental Health Risks and Safety Risks to Children – on implementing a federal strategy to virtually eliminate childhood lead poisoning.

### **Lead in Drinking Water**

Although the greatest risks are related to paint, lead in drinking water can also pose a risk to human health. To reduce potential exposure to lead, EPA has set a maximum contaminant level goal of zero for lead in drinking water and has taken several actions over the last 20 years to reduce lead in drinking water. The 1986 Amendments to the Safe Drinking Water Act (SDWA) effectively banned the new use of lead solder, and leaded

pipes from public water supply systems and plumbing, and limited faucets and other brass plumbing components to no more than 8% lead. To address lead in schools, the Lead Contamination Control Act (LCCA) of 1988 recalled drinking water coolers with lead-lined water reservoir tanks, and banned new drinking water coolers with lead parts. The 1986 SDWA Amendments also directed EPA to revise its regulations for lead and copper in drinking water.

An interim standard for lead in drinking water of 50 micrograms per liter, or parts per billion (ppb), had been established in 1975. Sampling of customer taps was not required to demonstrate compliance with this standard. In 1988, the Agency proposed revisions to the standard and issued a final standard in 1991. The revised standard significantly changed the regulatory framework. Unlike most contaminants, lead is not generally introduced to drinking water supplies from the source water. The primary sources of lead in drinking water are from lead pipe, lead-based solder used to connect pipe in plumbing systems, and brass plumbing fixtures that contain lead. Setting a standard for water leaving the treatment plant fails to capture the extent of lead leaching in the distribution system and household plumbing.

EPA requires public water suppliers to meet the regulations governing treated water quality distributed via the public water system. The regulations do not require homeowners to replace their plumbing systems if they contain lead. To reduce consumers' lead exposure from tap water, EPA used its available authorities to require public water suppliers to treat their water to make it as non-corrosive as possible to metals in their

customers' plumbing systems. These treatment requirements were issued in EPA's Lead and Copper Rule (LCR) on June 7, 1991.

The rule requires systems to optimize corrosion control to prevent lead and copper from leaching into drinking water. Large systems serving more than 50,000 people were required to conduct studies of corrosion control and to install the State-approved optimal corrosion control treatment by January 1, 1997. Small and medium sized systems are required to optimize corrosion control when monitoring at the consumer taps shows action is necessary.

To assure corrosion control treatment technique requirements are effective in protecting public health, the rule also established an Action Level (AL) of 15 ppb for lead in drinking water. Systems are required to monitor a specific number of customer taps, according to the size of the system, with a focus on sites that have lead service lines or lead-based solder in their plumbing systems. If lead concentrations exceed 15 ppb in more than 10% of the taps sampled, the system must undertake a number of additional actions to control corrosion and to inform the public about steps they should take to protect their health. If a water system, after installing and optimizing corrosion control treatment, continues to fail to meet the lead action level, it must begin replacing the lead service lines under its ownership. The rule was subsequently revised in 2000 to modify monitoring, reporting and public education requirements, but the basic framework, including the action level, was not changed.

**Actions Undertaken by EPA Headquarters to Address the D.C. Situation**

As Regional Administrator Welsh will describe, EPA has been working with WASA and the Washington Aqueduct, managed by the U.S. Army Corps of Engineers, which supplies water to WASA, to identify a treatment solution to reduce levels of lead from customer taps in many Washington, D.C. homes.

I fully understand the concerns that Congressional Members and Committees and City Leaders have regarding timely and effective public notification. EPA is reviewing the actions taken by all parties to ensure that we use the lessons learned to prevent such an event from taking place in the future – here in D.C. and in other communities across the nation. While the situation in D.C. appears to be unique, we are continuing to investigate the matter. However, in surveying States and regions, we have not identified a systemic problem of increasing lead concentrations in tap monitoring conducted by public water systems.

Staff from my program and EPA's Office of Research and Development have been working closely with the Region to provide technical assistance and are participating on the Technical Expert Working Group (TEWG) evaluating potential technical solutions to elevated lead levels. My staff convened a peer review panel to carry out an independent review of the TEWG's Action Plan. The input of the peer reviewers facilitated an acceleration of the technical solution to the problem that Regional Administrator Welsh will discuss.

### **National Actions to Evaluate Lead in Drinking Water**

As head of the national water program, I have directed my staff to undertake a number of actions to address the specific issue of lead in drinking water from a national perspective.

#### *National Review of Compliance and Implementation of the Lead & Copper Rule*

My staff are working with our enforcement and regional drinking water program managers to embark on a thorough review of compliance with, and implementation of, the LCR. Our review will answer three questions:

1. Is there a national problem? Does a significant percentage of the population receive water that exceeds the lead action level? Do a significant percentage of systems fail to meet the lead action level?
2. How well has the rule worked to reduce lead levels in systems over the past 12 years, particularly in systems that had demonstrated high lead levels in the initial rounds of sampling?
3. Is the rule being effectively implemented today, particularly with respect to monitoring and public education requirements?

Our initial focus is to ensure that EPA has complete and accurate information on the LCR in its Safe Drinking Water Information System (SDWIS). States were required to report specific results of monitoring (i.e., 90<sup>th</sup> percentile lead levels) to EPA for systems serving populations greater than 3,300 people beginning in 2002. At the March 5 hearing, using the incomplete information we had at that time, I reported that EPA had identified 4 systems serving more than 50,000 that had exceeded the action level. Following that

hearing, I sent a memorandum to Regional Administrators asking them to work with the States to ensure that all available information is loaded into the data system by the end of June.

As of April 28, 2004, states had submitted information to SDWIS for 85% of the 838 active systems in the country that serve more than 50,000 people. A summary of those data were made available to the public on May 3, 2004. We found that 22 of the 714 systems for which we have data exceeded the lead action level during one or more monitoring periods since 2000. Only eight of the systems, one of which is D.C., exceeded the action level during a monitoring period in 2003.

Although we are currently seeing problems in the District, it appears that the 1991 regulation, which required systems serving more than 50,000 to install corrosion control has been effective in reducing the public's exposure to lead in drinking water. However, even though we have had success in reducing exposure, we must remain vigilant to ensure that treatment continues to control corrosion and that information on potential risks is communicated to the public. EPA continues to collect data for other size systems and will release interim reports as results become available.

We are working to carry out a review of the systems that exceeded the action level in the initial rounds of sampling. We will work with our regional staff and states to better understand the actions taken by those systems to address elevated levels of lead and whether those actions have been effective in lowering lead levels. Later this year we will embark upon a review of state programs to determine if the rule is being effectively implemented by those systems that have recently exceeded the action level.

### *Expert Workshops*

Another component of EPA's national efforts include a review of the existing requirements of the rule and associated guidance to determine if changes need to be made to help utilities and states better implement the rule. The provision of safe drinking water is not an easy task. Treatment processes must be balanced to address multiple risks. EPA has developed guidance to assist systems in selecting among corrosion control treatment options and in balancing treatment processes when working to achieve simultaneous compliance with different standards. EPA has also released guidance to help utilities carry out effective public education and monitoring programs.

To help the Agency obtain additional information from experts, EPA is holding workshops on several components of the LCR Rule. The first two workshops were held in St. Louis, Missouri during the week of May 10. Thirty experts in corrosion control, water treatment, sampling and laboratory analysis participated in one or both of the workshops, and more than twenty observers attended. The first addressed utility experiences in managing simultaneous compliance with multiple drinking water rules and the second addressed sampling protocols for the rule. The experts noted that additional Agency guidance is needed to aid water systems in evaluating treatment changes, including disinfection changes and changes to coagulation processes, and the effectiveness of different corrosion inhibitors. The experts also identified concerns with distribution system maintenance and impacts of household plumbing on a system's ability to comply with the rule. Participants suggested that EPA review sampling provisions including the tiering



criteria that identify households for sampling and also suggested additional guidance on what monitoring is appropriate to evaluate the effects of treatment changes.

Experts in both workshops also identified issues that they believe warrant expert discussion in future workshops. These issues include small system issues, health effects of lead and risk communication, lead service line replacement requirements, monitoring for lead in schools, and seeking to completely remove lead from brass alloys used in plumbing fixtures and other devices. EPA is planning to schedule workshops on additional subjects such as public education later in the year.

#### *Monitoring for Lead in School Drinking Water*

As I noted in my March 5 testimony, all of us want to ensure that the nation's school children are not exposed to elevated lead levels in their drinking water. While States and schools took action in the late 1980's and early 1990's to remove harmful lead-lined coolers in accordance with the 1988 Lead Contamination Control Act (LCCA), lead solder and plumbing fixtures can still contain low levels of lead. States and schools should continue to monitor their water outlets to ensure that children are protected using EPA's recommended protocol for testing water in schools for lead. In March, I sent letters to State Directors of Health and Environmental Agencies seeking their help in better understanding State and local efforts to monitor for lead in school drinking water.

To date, we have heard from almost all states. We are reviewing their responses and will release a summary in the near future. Generally, states responded that they implemented the requirements associated with the LCCA and continue to focus on ensuring that schools with their own water system are in compliance with the LCR.

However, it does not appear that many states have specific programs focused on preventing exposure to lead in drinking water in schools and day care facilities that receive water from a water system. We will use the information provided by states to determine if updated or additional guidance should be developed to help States and local governments conduct more comprehensive monitoring in schools and day care facilities.

#### **Committee Questions and the Lead-Free Drinking Water Act of 2004**

Your invitation letter asked whether I believe the current drinking water program is adequate. The answer is yes. However, while I do not believe the current structure of the safe drinking water program needs to be reformed to ensure that the public consumes safe drinking water, I do believe that we need to be vigilant in ensuring that the protections we have in place through law and regulation are carried out by states and water utilities.

You also asked me to address H.R. 4268, which would overhaul provisions of the Safe Drinking Water Act related to lead. I welcome discussion with members of Congress on this important matter and fully understand that we have questions to answer as a result of the situation in D.C. While there are elements of the legislation that I find interesting, I believe that comprehensive legislation is premature at this time. It is critical that we have an understanding of the national scope of the problem before we move to make legislative changes that would affect all states and water systems. As to whether the bill would have prevented the situation in D.C., EPA is still working to determine the specific causes for elevated levels of lead. It would appear that the situation may have been caused by a combination of unique circumstances that would not necessarily have been prevented by

the legislation. Any law or regulation is only as good as its' implementation. As we have noted in prior testimony, the monitoring required under the regulation identified that a problem existed, however, the reaction to the problem and associated public education efforts were inadequate. This was not a failure of the Act or of EPA's regulation, but of proper implementation and vigorous oversight.

### **Conclusion**

Mr. Chairman, this reminds us all of the importance of communication – especially with the public. To maintain public health and confidence, information communicated to the public must not only be accurate, but timely, relevant and understandable. While I believe that communication efforts on the part of the Region, the District's Department of Health and WASA have improved, there is still much to be done to ensure that the city's residents are aware of the steps they can take to protect their health.

The review of compliance and implementation, expert workshops and other efforts underway will help the Agency to determine whether it is appropriate to develop additional training or guidance or make changes as part of our review of existing regulations. Our immediate goal is to ensure that the residents and D.C. receive safe water and, more generally, that systems and States have the information they need today to fully and effectively implement the rule and minimize risks to public health.

We will continue to work closely with the Region, our public service partners and concerned citizens to investigate the situation in D.C. and to review implementation of the

rule nationwide. EPA wants to ensure that citizens across the country are confident in the safety of their drinking water.

Thank you for the opportunity to testify this morning. I am pleased to answer any questions you may have.

\* \* \*